Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Canceled)

2. (Currently Amended) ~~The~~ An xDSL (Very high rate Digital Subscriber Line) modem comprising: a null compensator for finding a null frequency generated on a transfer function of a receiving signal before the DFE by predicting and tracing the null frequency to enlarge a signal component of the null frequency ~~according to claim 1~~, wherein the null compensator comprises:

a null compensating filter for enlarging the signal component corresponding to the null frequency on the transfer function of the receiving signal; and

a null tracer for tracing the null frequency using minimum point of a average power or [[a]] an output energy of the null compensating filter.

3. (Original) The xDSL according to claim 2, wherein the null compensating filter has a transfer function with an inverse characteristic to a notch filter having a transfer function characteristic with a notch type.

4. (Original) The xDSL according to claim 2, wherein the null tracer predicts and traces the null frequency with a RPE (Recursive Prediction Error) algorithm and a Gauss-Newton method.